

**A00 Anaesthesia for abnormally invasive placenta**

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**Introduction:** Abnormally invasive placenta (AIP) is associated with significant maternal haemorrhage, poor fetal outcome and high demand on healthcare resources. Although MBRRACE-UK reported only one death from AIP,<sup>1</sup> case numbers are increasing due to the rising incidence of uterine surgery and increasing maternal age.

**Methods:** Surgically confirmed cases of AIP from February 2010 to July 2015 in a tertiary maternity unit were analysed. Data are presented as mean  $\pm$  SD or [range].

**Results:** Thirty-four cases of AIP were identified. Mean maternal age was 35.4 $\pm$ 3.4 years, body mass index of 25.7 $\pm$ 4.4 kg/m<sup>2</sup> and gestation at delivery of 36 weeks [29-39]. All were delivered by caesarean section (94% category 3 or 4) and were performed in the delivery suite. Neuraxial anaesthesia was used in 94% (combined spinal-epidural 92%: needle-through-needle 71%: double-needle double-space 21%) and general anaesthesia (GA) in 6%. One undiagnosed emergency was started under spinal anaesthetic alone. Of cases started under neuraxial anaesthesia, 47% were converted to GA intraoperatively. Invasive blood pressure monitoring was used in 68% and internal jugular venous access in 44%. Urological intervention (prophylactic ureteric stents) occurred in 24%. Interventional radiology (internal iliac artery catheters) was used in 53% with balloon inflation in 94%. Inadvertent sheath displacement occurred in one case. A Pfannensteil incision was used in 50%, midline in 47% and high transverse in 3%. Varying degrees of placental separation occurred during surgery: complete 41%, partial 18%; none 41%. Surgical diagnosis was accreta 82%, increta 6% and percreta 12%. With placenta percreta, infiltration was most commonly to the bladder, followed by uterovesical fold and pelvic sidewall. Caesarean hysterectomy occurred in 53%, delayed hysterectomy in 6% and the uterus was preserved in 41%. Mean estimated blood loss was 2559 mL [500-12000], with 62% sustaining postpartum haemorrhage (PPH) >1000 mL and 41% >2000 mL. Intraoperative red cell transfusion occurred in 38% (mean 5.1 U [1-14]). Fresh frozen plasma was transfused in 35%, platelets in 18% and cryoprecipitate in 9%: tranexamic acid was used in 21%. Intraoperative cell salvage was used in 59% cases: mean collection volume 1987 mL [250-6327]; mean transfused volume 509 mL [0-1748]. Mean surgical time was 248 min [75-615]. Emergency return to theatre for PPH occurred in 6%. Three women (9%) were admitted to critical care (mean stay 23 h). Mean hospital postoperative stay was 8 days [3-41]. There were no maternal deaths.

**Discussion:** Our findings are similar to others,<sup>2</sup> although primary GA rates were lower (6% vs. 26%). The incidence of PPH was similar (41% vs. 39%) with a higher caesarean hysterectomy rate (53% vs. 30%). Although our internal iliac balloon inflation rate was higher (94% vs. 71%), there were fewer complications. Conversion from neuraxial to GA was made in approximately half of parturients, but was not associated with adverse maternal outcome.

**References**

1. MBRRACE- UK. Saving Lives, Improving Mothers' Care National Perinatal Epidemiology Unit, University of Oxford 2014
2. Lilker SJ, Meyer RA, Downey KN, Macurthur AJ. Anesthetic considerations for placenta accreta. *Int J Obstet Anesth* 2011;20:288-92.